

# Work Order ID 97716

September-30-13 11:17:58 AM

D350-689-041

\*97716\*

Page 1

Item ID: D350-689-041 **097716** Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: **REV. B** Stop **\*NS2\***  
 Item Name: Dual High Back Seat Assembly  
 Start Date: 2/21/13 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 3/08/13 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: W Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
<b>Draw Nbr</b>	<b>Revision Nbr</b>								
D3022	B								
D3023	A								
IIN D350-689	B								

100

0.00

**\*100\***

Large Fab

Brake NC

Memo

0.00

Brake NC

1-Bend D3023-1 form edge of back pan as per dwg D3023 using D3017-041  
 back frame  
 2- Bend D3022-1 as per dwg

① 13-10-2

110

QC5- Inspect part completeness to step on W/O

0.00

**\*110\***

QC

Memo

0.00

Quality Control

① 13-10-02

DA  
09  
2-89

# Work Order ID 97716

**\*97716\***

Page 2

September-30-13 11:17:58 AM

Item ID: D350-689-041 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Dual High Back Seat Assembly  
 Start Date: 2/21/13 Start Qty: 1.00 **\*1\*** Cust Item ID:  
 Required Date: 3/08/13 Req'd Qty: 1.00 **\*1\*** Customer:  
 Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
 QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
114		0.00							
<b>*114*</b>						①	②	13-10-2	
Large Fab	Memo	0.00							
Large Fab	1- Transfer drill Seat Pan From Frame ***Transfer drill in D3022-1 using D3017-041***  2- Deburr  3- Assemble as per IIN 350-689-041								
116	QC5- Inspect part completeness to step on W/O	0.00							
<b>*116*</b>						①	13-10-02		DAS 09 89
QC	Memo	0.00							
Quality Control									
117	Chemical Conversion Coat per QSI005 4.1	0.00							
<b>*117*</b>						1	246	13-10-2	
HandFinish	Memo	0.00							
Hand Finishing	Chemical Conversion Coat only D3023-1 and D3022-1								

# Work Order ID 97716

\*97716\*

Page 3

September-30-13 11:17:58 AM

Item ID: D350-689-041

Accept

\*N900040100\*

Setup Start \*NS1\*

Revision ID:

Stop \*NS2\*

Item Name: Dual High Back Seat Assembly

Start Date: 2/21/13 Start Qty: 1.00 \*1\*

Cust Item ID:

Required Date: 3/08/13 Req'd Qty: 1.00 \*1\*

Customer:

Reference:

Approvals: Process Plan: Date: Tooling: Date:

Run Start \*NR1\*

QC: Date: SPC (Y/N): Date:

Stop \*NR2\*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
118		0.00							
<b>*118*</b>									
Small Fab	Memo	0.00							
Small Fab	Assemble back panel to back frame as per dwg								
119	QC5- Inspect part completeness to step on W/O	0.00							
<b>*119*</b>									
QC	Memo	0.00							
Quality Control									
120	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3	0.00							
<b>*120*</b>									
Powdercoat	Memo	0.00							
Powder Coating	Powder coat								

START TIME:  
OVEN TEMPERATURE:  
FINISH TIME:

12-00  
32-30  
12-30

m125028

1X m413/10/03

13/10/03

DAS  
16  
9-89  
13/10/03

# Work Order ID 97716

September-30-13 11:17:58 AM

**\*97716\***

Page 4

Item ID: D350-689-041

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Dual High Back Seat Assembly

Start Date: 2/21/13 Start Qty: 1.00 **\*1\***

Cust Item ID:

Required Date: 3/08/13 Req'd Qty: 1.00 **\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	QC3- Inspect Part Finish	0.00				1x	d	all 13/10/10	
<b>*130*</b>									
QC	Memo	0.00							
Quality Control									
140		0.00				1x			
<b>*140*</b>	Large Fab								
Small Fab	Memo	0.00							
Small Fab	Assemble frames and seat and back pan as per IIN-D350-689 page 15								
150	QC5- Inspect part completeness to step on W/O	0.00							
<b>*150*</b>									
QC	Memo	0.00							
Quality Control									

DAS  
16  
9-89

1310104

9/30/03

# Work Order ID 97716

September-30-13 11:17:58 AM

**\*97716\***

Page 5

Item ID: D350-689-041

Accept

**\*N900040100\***

Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Dual High Back Seat Assembly

Start Date: 2/21/13 Start Qty: 1.00 **\*1\***

Cust Item ID:

Required Date: 3/08/13 Req'd Qty: 1.00 **\*1\***

Customer:


Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

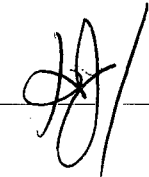
Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160	Identify as per dwg & Stock Location: _____	0.00							
<b>*160*</b>									
Packaging	Memo	0.00				1X		13-10-4	
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
<b>*170*</b>									
QC	Memo	0.00							
Quality Control									

CHG002

 13-10-4

13-10-04

# Picklist Print

September-30-13 11:17:56 AM

Page 1

Work Order ID: 97716

Parent Item: D350-689-041

Parent Item Name: Dual High Back Seat Assembly

Start Date: 2/21/13

Required Date: 3/08/13

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:H Removed Sub-Parts 06-02-09 JLM  
 IPP Rev:I As per NCR 070 06-09-06 JLM  
 10.02.12 verified by:JLM  
 IPP Rev:J as per DSI 9498 DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
AN3-12A Bolt		Purchased	No			140	Each	185.0000	3	3			

Location Loc Qty Loc Code

GA 6  
 122407 6  
 ST351 179  
 114536 1  
 123352 2  
 m125709 100  
 m125752 2  
 m126192 74

AN960JD10L

NAS1149D0332J

Purchased

No

Washer

4 M125807

(17X)

140

Each

0.0000

17

17

D3016-041

Manufactured

No

Seat Frame Assembly

106770

114

Each

0.0000

1

1

D3017-041

Manufactured

No

Seat Back

107154

114

Each

0.0000

1

1

D3021-041

Manufactured

No

Tube Assembly

107264

140

Each

0.0000

1

1

D3022-1

Manufactured

No

Seat Pan

100

Each

2.0000

1

1

Location Loc Qty Loc Code

WA001 2  
 101074 2

D3023-1

Manufactured

No

Back Panel

100

Each

0.0000

1

1

100757

28 13-10-3

3X

13-10-2

EL 13-10-2

EL 13-10-2

EL 13-10-2

EL 13-10-2

EL 13-10-2

# Picklist Print

September-30-13 11:17:56 AM

Page 2

Work Order ID: 97716

Parent Item: D350-689-041

Parent Item Name: Dual High Back Seat Assembly

Start Date: 2/21/13

Required Date: 3/08/13

Start Qty: 1.00

Required Qty: 1.00

D3024-1 Spacer	Manufactured	No	140	Each	28.0000	3	3	13-10-3	DA 28
			<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>				
			ST024	28					
			104966	24		3x			
			95346	4					
D3028-1 Stud	Manufactured	No	140	Each	16.0000	4	4		DA 28
			<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>				
			ST024	16		B91875(2x)			
			97695	16		2x			
D3029-1 Spring	Manufactured	No	140	Each	14.0000	2	2		DA 28
			<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>				
			GA	14					
			105583	10					
			68607	1					
			90659	3		2			
D3030-1 Lock	Manufactured	No	140	Each	10.0000	2	2		DA 28
			<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>				
			ST024	10		B90641			
			97713	10					
D3031-1 Loop	Manufactured	No	140	Each	15.0000	2	2		DA 28
			<u>Location</u>	<u>Loc Qty</u>	<u>Loc Code</u>				
			GA	3					
			79747	3					
			ST024	12					
			97679	12		2x			

September-30-13 11:17:57 AM

Shop Packet Print

Page 2

# Picklist Print

September-30-13 11:17:57 AM

Page 3

Work Order ID: 97716

Parent Item: D350-689-041

Parent Item Name: Dual High Back Seat Assembly

Start Date: 2/21/13

Required Date: 3/08/13

Start Qty: 1.00

Required Qty: 1.00

MS20600-AD4W2

Purchased

No

118

Each

2,258.0000

40

40

Rivet

Location

Loc Qty

Loc Code

ST311

600

m125708

600

ST506

658

125578

658

ST554

1000

m126475 -

1000

MS20600-AD4W3

Purchased

No

118

Each

721.0000

6

6

Cherry Rivets

Location

Loc Qty

Loc Code

ST311

588

122151

4

122452

4

123525 ~~WA~~

288

124231

292

WA003

133

107939

133

22

18

28 13-10-3

6x

September-30-13 11:17:57 AM

Shop Packet Print

Page 3



# Picklist Print

September-30-13 11:17:57 AM

Page 4

Work Order ID: 97716

Parent Item: D350-689-041

Parent Item Name: Dual High Back Seat Assembly

Start Date: 2/21/13

Required Date: 3/08/13

Start Qty: 1.00

Required Qty: 1.00

MS21042L3 Purchased No

140 Each 5,740.0000 17 17

28 13-10-3

Location	Loc Qty	Loc Code
FP001	3	
122141	3	
GA	18	
122452	18	
ST314	304	
111668	1	
117885	32	
119017	55	
119075	138	
123265	43	
M126036	35	
ST506	1177	
123900	856	
124291	321	
ST510a	4238	
M126275	238	17X
M126333	4000	

September-30-13 11:17:57 AM

Shop Packet Print

Page 4

# Picklist Print

September-30-13 11:17:57 AM

Page 5

Work Order ID: 97716

Parent Item: D350-689-041

Parent Item Name: Dual High Back Seat Assembly

Start Date: 2/21/13

Required Date: 3/08/13

Start Qty: 1.00

Required Qty: 1.00

MS21042L4 Purchased No

140 Each 3,402.0000 6 6

Locknut

28 13-10-3

Location	Loc Qty	Loc Code
FP001	50	
122452	38	
8182	12	
ST314	9	
m125708	9	
st507	33	
m126073	33	
ST509	2887	
<u>m126275</u>	2887	6x
ST510a	258	
m126333	258	
ST518	165	
124231	165	

MS24693-S272 Purchased No

140 Each 449.0000 4 4

SCREW

28

Location	Loc Qty	Loc Code
ST301	97	
124704	5	
<u>M126119</u>	92	4x
st507	352	
M126190	352	

MS27039-1-17 Purchased No

140 Each 203.0000 4 4

Screw (601.1954)

28

Location	Loc Qty	Loc Code
GA	48	
120142	48	
ST506	155	
<u>124326</u>	155	4x

September-30-13 11:17:57 AM

Shop Packet Print

Page 5

# Picklist Print

September-30-13 11:17:57 AM

Page 6

Work Order ID: 97716

Parent Item: D350-689-041

Parent Item Name: Dual High Back Seat Assembly

Start Date: 2/21/13

Required Date: 3/08/13

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-19

Purchased

No

140

Each

1,266.0000

6

6

Screw

28 13-10-3

Location

Loc Qty

Loc Code

ST306

102

122814

2

123522

100

ST504

1000

125654

1000

ST506

164

124326

164

6x

MS27039-4-21

Purchased

No

140

Each

59.0000

6

6

Screw

28

Location

Loc Qty

Loc Code

ST307

59

124586

9

m126319

50

6x

NAS1149D0432J

Purchased

No

140

Each

472.0000

6

6

WASHER

28

Location

Loc Qty

Loc Code

GA

1

116583

1

ST293

52

124580

52

ST294

3

116583

3

ST510a

416

125578

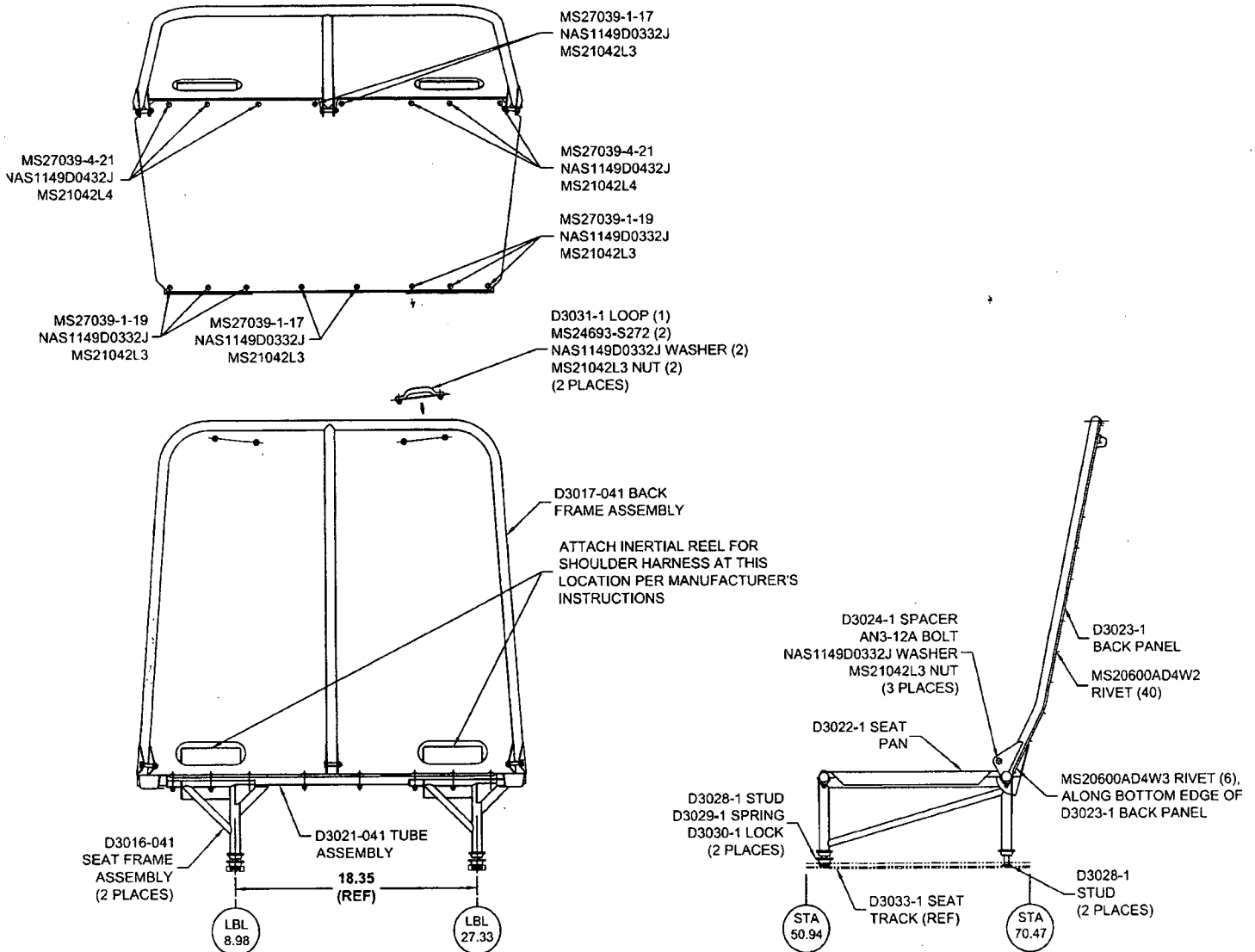
416

6x

September-30-13 11:17:58 AM

Shop Packet Print

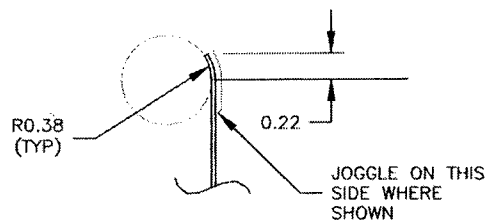
Page 6



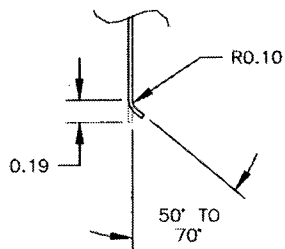
**FIGURE 9: Installation of D350-689-041 Dual High Back Seat Assembly**

*W/O 9776 C 13-10-4*

SECTION A-A  
SCALE 1:1  
(TYPICAL, EXCEPT WHERE SHOWN)

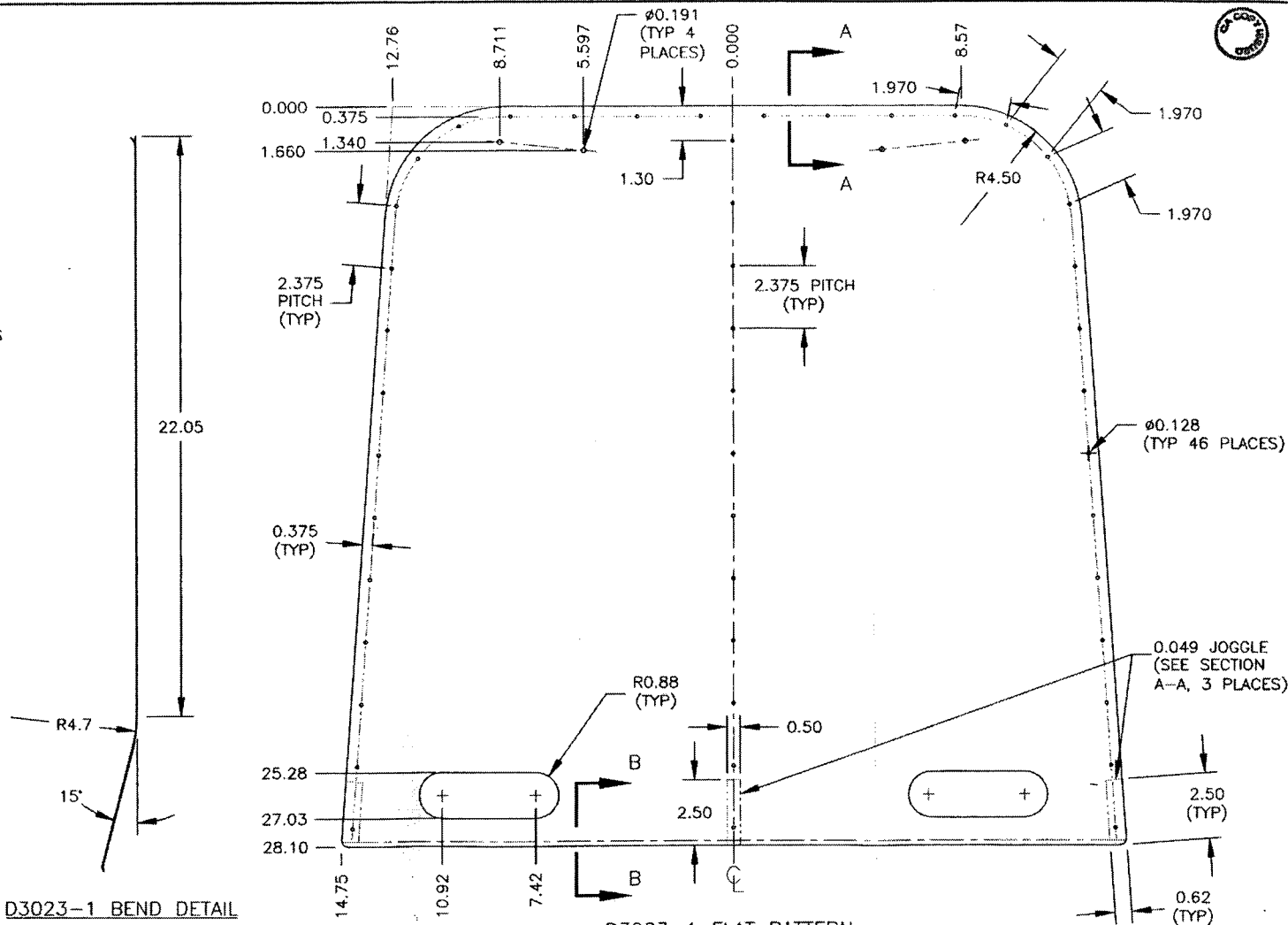


SECTION B-B  
SCALE 1:1  
(BOTTOM EDGE ONLY)



RELEASED  
9.06.07

D3023-1 BEND DETAIL



D3023-1 FLAT PATTERN

D3023-1 BACK PANEL:

- 1) MATERIAL: 2024-T3 (QQ-A-250/4) 0.032 THICK
- 2) FINISH: ACID ETCH & ALODINE PER DART QSI 005 4.1  
POWDER COAT GREY SANDTEX (REF 4.3.5.6) PER DART QSI 005 4.3
- 3) ALL DIMENSIONS ARE IN INCHES.
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

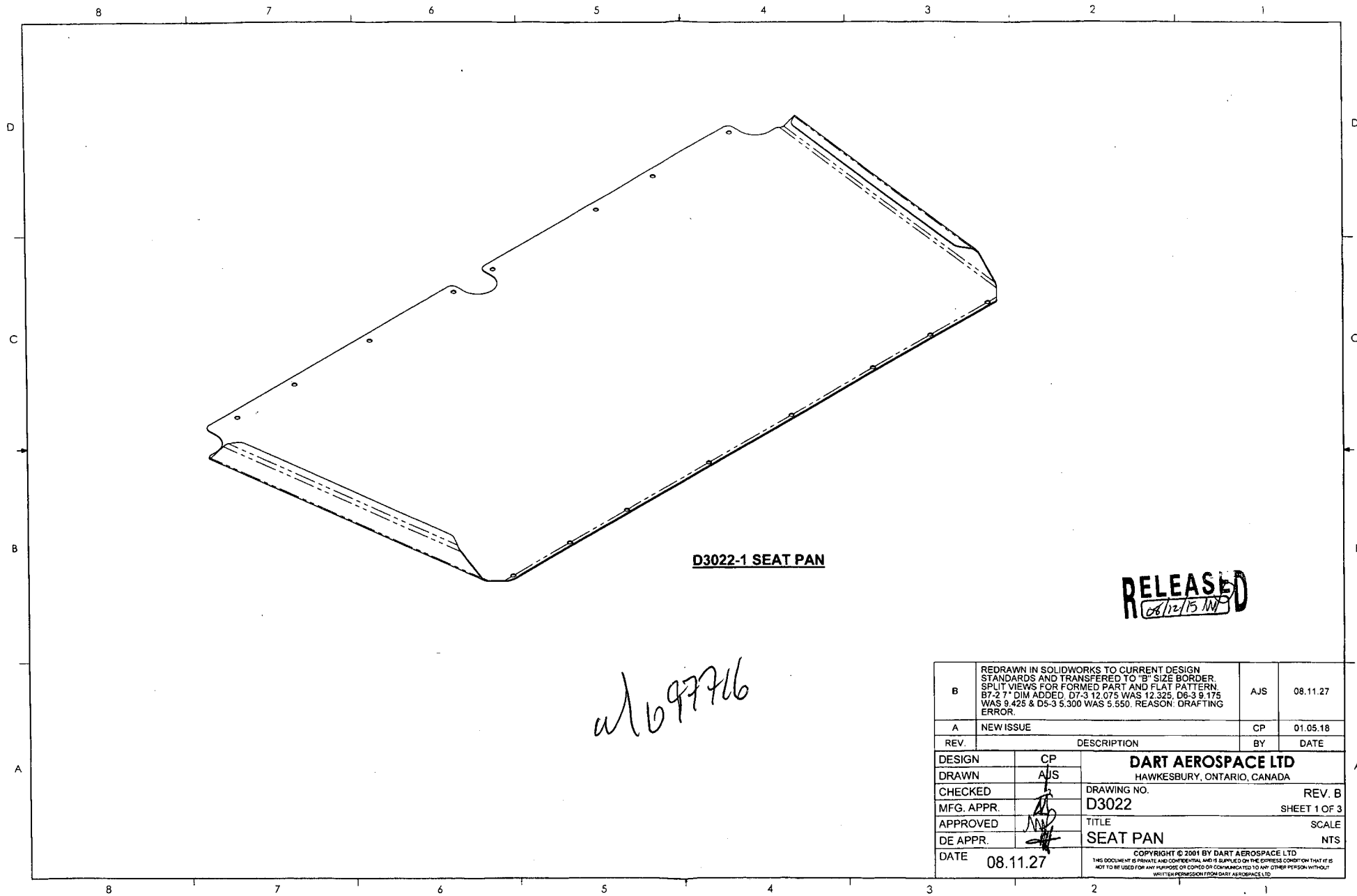
COPYRIGHT © 2001 BY DART AEROSPACE LTD.

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL  
AND IS SUPPLIED ON THE EXPRESS CONDITION  
THAT IT IS NOT TO BE USED FOR ANY PURPOSE  
OR COPIED OR COMMUNICATED TO ANY OTHER  
PERSON WITHOUT WRITTEN PERMISSION FROM  
DART AEROSPACE LTD.

A	01.05.18	NEW ISSUE
DESIGN	DRAWN BY	<b>DART</b> DART AEROSPACE LTD. MARKHAM, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D3023
DATE	TITLE	SCALE
01.05.18	BACK PANEL	1:4

REV. A

SHEET 1 OF 1

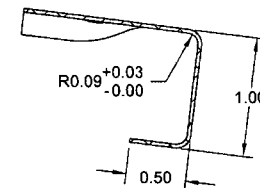
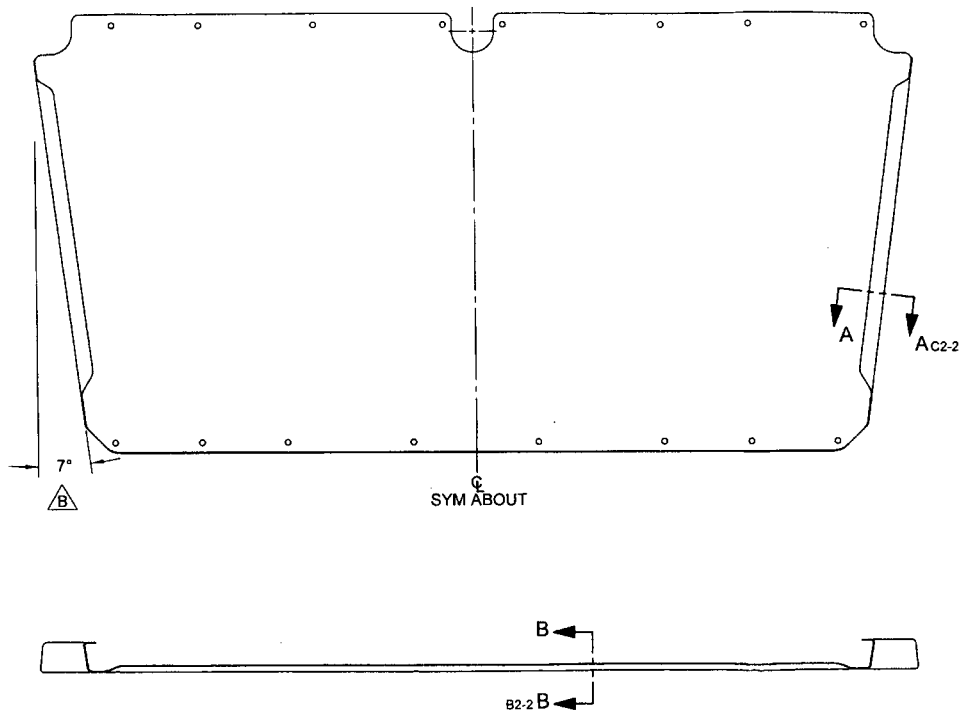


**D3022-1 SEAT PAN**

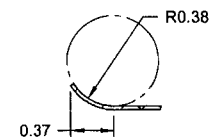
**RELEASED**  
08/12/15 NWS

*a/b 977716*

B	REDRAWN IN SOLIDWORKS TO CURRENT DESIGN STANDARDS AND TRANSFERRED TO "B" SIZE BORDER. SPLIT VIEWS FOR FORMED PART AND FLAT PATTERN. B7-2 7" DIM ADDED. D7-3 12.075 WAS 12.325, D6-3 9.175 WAS 9.425 & D5-3 5.300 WAS 5.550. REASON: DRAFTING ERROR.	AJS	08.11.27
A	NEW ISSUE	CP	01.05.18
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	[Signature]	DRAWING NO.	REV. B
MFG. APPR.	[Signature]	D3022	SHEET 1 OF 3
APPROVED	[Signature]	TITLE	SCALE
DE APPR.	[Signature]	SEAT PAN	NTS
DATE	08.11.27	COPYRIGHT © 2001 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	



**SECTION A-A** C4-2  
SCALE 4X



**SECTION B-B** A6-2  
SCALE 4X

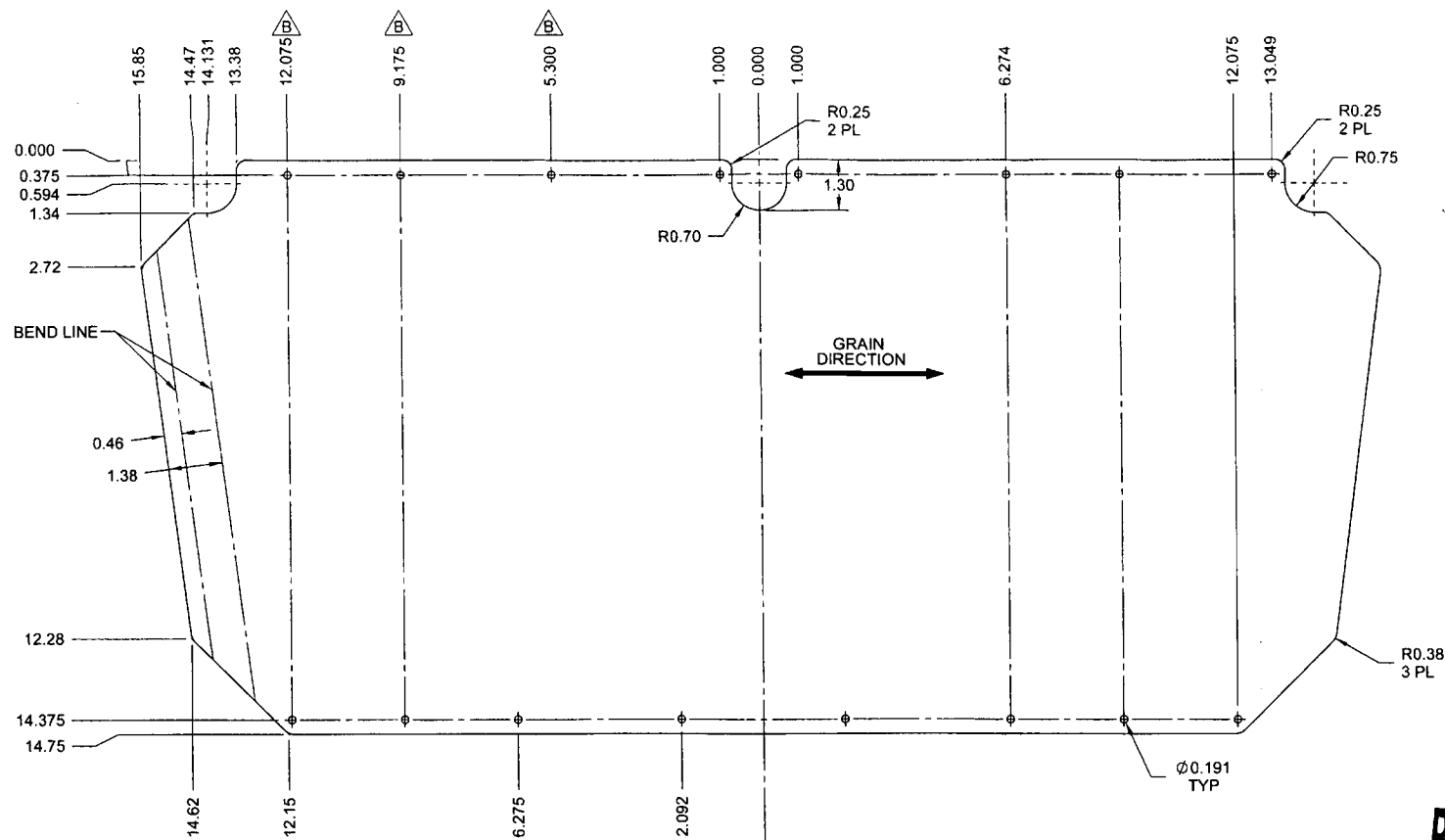
**D3022-1 SEAT PAN**

**NOTES:**

- 1) MATERIAL: MAKE FROM D3022-1F
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1  
POWDER COAT GREY SANDTEX (4.3.5.6) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3022-1" USING FINE POINT PERMANENT INK MARKER
- 7) WEIGHT: 1.36 lbs

**RELEASED**  
08/12/15

DESIGN	CP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO. <b>D3022</b>	REV. B
MFG. APPR.		SHEET 2 OF 3	
APPROVED		TITLE <b>SEAT PAN</b>	SCALE
DE APPR.		NTS	
DATE	08.11.27	COPYRIGHT © 2001 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	



SYM ABOUT  
UNLESS OTHERWISE  
NOTED

# **D3022-1F SEAT PAN** B

## **NOTES:**

- 1) MATERIAL: 2024-T3 ALUMINUM SHEET, 0.032 THICK  
PER AMS-QQ-A-250/4 OR AMS 4037  
REF DART SPEC M2024T3S.032
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: 1.36 lbs

**RELEASED**  
28/12/15 JH

DESIGN	CP	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		<b>D3022</b>	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.		<b>SEAT PAN</b>	NTS
DATE	08.11.27	COPYRIGHT © 2001 BY DART AEROSPACE LTD <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	